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Intra Uterine Device (IUD) Migration into the Bladder. Diagnosis Issues and Management

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Abstract

Background: Intra uterine device (IUD) is commonly used as contraceptive procedure. A mislocation is possible and may reduce quality of life. **Aim**: This paper aims to present a rare case report and emphasize on the difficulty of diagnosis. **Case Presentation**: A 40-year-old woman had a history of IUD implantation after her last delivery. Six years later, she visited a doctor for a pelvic pain going on for a long period. The diagnosis of mislocated intra uterine device (IUD) was made using imaging techniques. **Conclusion**: A pelvic pain in a woman, going on for a long period, should evoke a migrated IUD. Thorough exploration and management are required.

Keywords

Bladder Foreign Body, Intra Uterine Device, Cystoscopy

1. Introduction

Intra uterine device (IUD) is often used for contraception purpose [1]. As in any medical procedure, complications are possible. Following the insertion, an extra uterine migration is possible and the bladder is one of the most frequent locations. A mislocated IUD into the bladder is a rare situation [2]. Many risk factors have been identified in the literature [3].

It is generally due to an accidental perforation of the uterine wall while placing the device. Inflammation induced by copper IUD will lead to a secondary migration [4]. Therapeutic options depend on the location of the IUD, the migration being complete or partial and the associated lesions. We report a case

observed in our department.

Informed consent was obtained from the patient to present the case. The manuscript was presented to the Medical and Scientific Director of CHU de Treichville who approved it.

2. Case

A 40 years old housewife was seen by a doctor for a pelvic pain mimicking a cramp with no particular irradiation, going on for around six months. This pain was associated to burning while passing urine. There was no hematuria, dysuria, urgency or fever. She had 6 pregnancies and 5 births all by natural way. After the last delivery, 6 years before, a TT380 type intra uterine device was implanted. Past medical history was uneventful. Vaginal examination found a hard T shape mass into the bladder. At this moment, the migration of the IUD was not evoked. Intra uterine device wires were not detected into the vagina. Pelvic ultrasound found a hyperechoic stretched mass into the bladder. The uterus was empty (**Figure 1**). The migration of the IUD placed 6 years formerly was then suspected.

A cystoscopy was decided. During this procedure, the IUD was seen as a foreign body located at the top of the bladder. The IUD was adherent to the bladder wall (**Figure 2**).

An attempt to remove the IUD with a foreign body forceps during a cystoscopy failed.

A cystostomy was then decided and performed. The IUD was removed after incision of the top of the bladder (**Figure 3** and **Figure 4**).

The bladder was closed by a two-layer suture. At the end of the procedure a Fr20 catheter was placed with watertightness control using dye test. Follow up was uneventful and the patient was released two days after surgery. No other complaint or complication occurred.

Figure 1. Hyperechoic mass into the bladder.

Figure 2. Endoscopic view of the intra uterine device located at the top of the bladder.

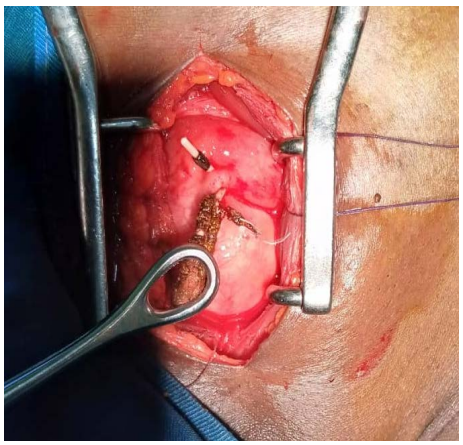

Figure 3. Removal of the intra uterine device by open cystotomy.

Figure 4. Foreign body (intra uterine device) extracted from the bladder.

3. Comments

Intra uterine device for birth control purpose is widely used worldwide [5] [6]. Following the implantation, complications may occur. Among them, migration of the device is reported by many authors [5] and bladder migration is an exceptional complication of IUD implantation. Haouas noted in 2006 forty cases in

the literature [7]. Although the IUD migration is rare, it can be located to ureter, the bladder, the peritoneal cavity, the omentum, the rectum or the colon [2] [5]

The delay from insertion to clinical signs can be long and reach 15 years [1] [8]. Most of the time patient age is around 30 to 40 years [3] [9] [10] as in our case. This condition may however concern young patient [11].

Some risk factors have been identified [3] [6]. The post partum period with reversal of the uterus size can provoke perforation and promote IUD migration. Lactation and history of caesarean are also mentioned as risk factors [6].

Presentation is polymorphic. IUD can be silent [2] but in most of the cases, symptoms are marked by an irritative syndrom of the lower urinary tract, hematuria or pelvic pain [12] [13]. Sometimes, clinic signs are not specific and medical imaging may be necessary to assess the diagnosis of migrated IUD.

Plain abdominal X-Ray and ultrasonography are useful for identification and location of the IUD [2] [10] but in some cases CT scan is used [1] [8] [9] [11].

Most of the time urinary stone is associated to IUD migration to the bladder [2] [3] [8] [11].

In our case, the reccurent chronic pelvic pain led to a consultation in urology.

Clinical exam can be normal. A vesical fistula must be searched. Ultrasonography gives the diagnosis and research of complications such as bladder stone [14].

In this case, ultrasound allowed identification of the location of the IUD which was finally confirmed at cystoscopy. There was no fistula or lithiasis.

In ideal condition the stone is fragmented by lithotripsy [3] [8] [11].

In case of failure of endoscopic extraction, laparoscopic extraction can be attempted [15]. In our case we chose open surgery for the extraction of the IUD.

4. Conclusion

IUD migration into the bladder is rare. Clinic and paraclinic exploration must focus on the location of the device and research other complications (fistula, stone). Endoscopic management must be tried first. If failure, laparoscopic or incisional surgery is required.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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